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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/461,521	12/14/1999	REINHARD HEINRICH HOHENSEE	BO9-99-013	3912

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BRACEWELL & PATTERSON, L.L.P.
INTELLECTUAL PROPERTY LAW
P.O. BOX 969
AUSTIN,, TX 78767-0969

EXAMINER

NGUYEN, CHAU T

ART UNIT

PAPER NUMBER

2176

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/461,521

Applicant(s)

HOHENSEE ET AL.

Examiner

Chau Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-7,9-12,14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4-7, 9-12, and 14-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/19/2005 has been entered. Claims 1-2, 4-7, 9-12, and 14-15 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-2, 4-7, 9-12, and 14-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 6,336,124 B1 to Alam et al., issued January 1, 2002, filed July 7, 1999 in view of U.S. Patent Number 5,813,020 to Hohensee et al., issued September 22, 1998, U.S. Patent Number 5,767,833 to Vanderwiele et al.,

issued June 16, 1998, and U.S Patent Number 6,590,674 B1 to Orton, issued July 8, 2003, filed September 23, 1999.

4. Regarding **independent claims 1, 6, and 11**, Alam et al. teach a data processing system having a CPU, memory, at least one user output device, and a user input device. (Alam et al., Fig. 2.)

Further, Alam et al. teach a method for retrieving and presenting stored documents on a plurality of output devices each requiring different presentation parameters. (Alam et al., Abstract.)

Further, Alam et al. teach parsing a document into one or more objects. (Alam et al., col. 6, lines 16-18: "Text/image document 518 is output to a document converter 528 which converts text and/or image document 518 to an intermediate format document 530."; col. 6, lines 59-61: "Each group is stored in the intermediate format document as an intermediate format block.")

Further, Alam et al. inherently teach classifying a plurality of presentation devices inasmuch as they teach that devices can access an index document that will allow them to select an output format suitable for the device (Alam et al., col. 21, lines 54-57); such a selection would not be possible unless devices were classified.

Further, Alam et al. teach receiving a request from a presentation device. (Alam et al., col. 22, lines 34-35.)

Further, Alam et al. teach assembling a document from stored intermediate format blocks, analogous to stored units. (Alam et al., col. 20, lines 25-29.)

Further, Alam et al. teach sending the assembled document to the presentation device.
(Alam et al., col. 20, lines 49-51.)

Further, Alam et al. do not teach parsing each object into one or more units. However, Hohensee et al. teach parsing an object into one or more units when the object is a page segment. (Hohensee et al., Fig. 3.) Moreover, one of ordinary skill in the art would have recognized the need to parse an object into one or more units because one of ordinary skill would have known that objects such as pages are frequently comprised one or more units. Therefore, it would have been obvious to one of ordinary skill in the art to parse each object into one or more units.

Further, Alam et al. does not teach for each units, determining whether the unit is complex based on an amount of data processing required to convert said unit to device-dependent format; storing said units, requiring less data processing to convert to said device-dependent format, in device-independent format, and storing said units, requiring more data processing to convert to said device-dependent format, in said device-dependent format based on the classified plurality of presentation devices. In the same field of endeavor, Vanderwiele et al. teach a system determines whether the device is a 24 bpp (bit per pixel element: bpp is considered as a unit) device, or 8 bpp device, or 4 bpp device (24 bpp and 8 bpp are amount of data processing, thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to interpret that 24 bpp would be more complex than 8 bpp or 4 bpp) and then the system converts either 24 or 8 or 4 device independent bits (DIB) to 24 or 8 or 4 device dependent bit (DSB) format respectively before outputting to storage or to the device in the device

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dependent bit DSB format (Abstract, col. 2, lines 10-39 and col. 5, line 19 – col. 6, line 30). Vanderwiele et al. also teach a system that “determines whether [an] image is targeted for multiple hardware formats or a single hardware format and then provides a conversion from device independent bits to device dependent bits formats in the case of the multiple hardware format targeting, or performing image conversion appropriate for the single device in the case of the single device targeting.” (Vanderwiele et al., Abstract.) In addition, Orton teaches storing document units in a universal, viewer-independent format so that files may be viewed in a multitude of applications. (Orton, col. 2, lines 33-46.) Moreover, one of ordinary skill in the art would have recognized the benefit of storing units in device independent format requiring less process where possible, since one of ordinary skill would have recognized that less processing is desirable. One of ordinary skill in the art would also have recognized the desirability of storing units in device-dependent format requiring more processing when the target device was known to be a particular class of device, since this would deliver data to the device more quickly. Therefore, it would have been obvious to one of ordinary skill in the art to have implemented the steps of storing units, requiring less processing to convert to device-dependent format, in device-independent format or storing units, requiring more processing to convert to device-dependent format, in device-dependent format, and thus it would provide high quality output, rivaling the original image quality across all devices serviced by the data processing system without suffering performance penalties.

5. Regarding **dependent claims 2, 7, and 12**, Alam et al. teach determining a type of each unit inasmuch as determining a type of intermediate format block, analogous to units, is inherent in Alam et al.'s teaching of keeping track of and storing different kinds of intermediate format blocks, such as text, images, and multimedia files. (Alam et al., col. 6, line 57 – col. 7, line 1.)

6. Regarding **dependent claims 4, 9, and 14**, Alam et al. teach determining acceptable document formats for the connected presentation devices inasmuch as such a determination would have been inherent in sending an output format “depending upon the requesting application or output display device” (Alam et al., col. 20, lines 59-60), as well as the execution of JavaScript to select a suitable output format for the device (Alam et al., col. 21, lines 54-57); *i.e.*, before a selection of a suitable output format could be made, it would have been necessary to determine what formats were acceptable.

Further, Alam et al. do not explicitly teach classifying devices according to device-dependent characteristics. However, one of ordinary skill in the art would have known that it was most efficient to classify devices according to device-dependent characteristics because one of ordinary skill would have recognized that classifying devices according to device-dependent characteristics would have resulted in the minimum number of classifications possible, and that devices with different characteristics could be classified together as long as the different characteristics were

not device-dependent. Therefore, it would have been obvious to one of ordinary skill in the art to classify devices according to device-dependent characteristics.

7. Regarding **dependent claims 5, 10, and 15**, Alam et al. do not teach determining whether the peripheral device is known or unknown. However, inasmuch as Alam et al. teach sending an output format "depending upon the requesting application or output display device" (Alam et al., col. 20, lines 59-60), one of ordinary skill in the art would have recognized that it would have been necessary to determine whether the peripheral device was known or unknown before selecting an output to be sent to it, because one of ordinary skill would have seen that it would not have been possible to send device-dependent output to an unknown device. Therefore, it would have been obvious to one of ordinary skill in the art to implement the recited claim limitation.

Response to Arguments

In the remarks, Applicants argued in substance that

Claims rejections under 35 U.S.C. 112

8. Applicant's arguments, see page 17 of the remarks, filed 12/19/2005, with respect to claims rejection under 35 U.S.C. 112 have been fully considered and are persuasive. Therefore, the 112 rejection has been withdrawn.

Claims rejections under 35 U.S.C. 103

A) None of the references nor the combination of references suggest “determining whether the unit is complex based on an amount of data processing required to convert said unit to device-dependent format” and “storing said units, requiring more data processing to convert to said device-dependent format, in said device-dependent format based on the classified plurality of presentation devices.” (see pages 8-9 of the remarks)

In reply to argument A, Vanderwiele et al. teach a system determines whether the device is a 24 bpp (bit per pixel element: bpp is considered as a unit) device, or 8 bpp device, or 4 bpp device (24 bpp and 8 bpp are amount of data processing, thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to interpret that 24 bpp would be more complex than 8 bpp or 4 bpp) and then the system converts either 24 or 8 or 4 device independent bits (DIB) to 24 or 8 or 4 device dependent bit (DSB) format respectively before outputting to storage or to the device in the device dependent bit DSB format (Abstract, col. 2, lines 10-39 and col. 5, line 19 – col. 6, line 30). Vanderwiele et al. also teach a system that “determines whether [an] image is targeted for multiple hardware formats or a single hardware format and then provides a conversion from device independent bits to device dependent bits formats in the case of the multiple hardware format targeting, or performing image conversion appropriate for the single device in the case of the single device targeting.” (Vanderwiele et al., Abstract.) In addition, Orton teaches storing document units in a

universal, viewer-independent format so that files may be viewed in a multitude of applications (Orton, col. 2, lines 33-46).

B) There is no teaching or suggestion within the references.

In reply to argument B, applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, one of ordinary skill in the art would also have recognized the desirability of storing units in device-dependent format requiring more processing when the target device was known to be a particular class of device, since this would deliver data to the device more quickly. Therefore, it would have been obvious to one of ordinary skill in the art to have implemented the steps of storing units, requiring less processing to convert to device-dependent format, in device-independent format or storing units, requiring more processing to convert to device-dependent format, in device-dependent format, and thus it would provide high quality output, rivaling the original image quality across all devices serviced by the data processing system without suffering performance penalties.

C) Improper hindsight utilized to combine references and reject the claims (see page 10 of the remarks)

In reply to argument C, applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

D. The step of "Determining" is not shown or suggested.

In reply to argument D, Vanderwiele et al. teach in the Abstract, col. 2, lines 1--39 and col. 5, line 19 – col. 6, line 30 that a system determines whether the device is a 24 bpp (bit per pixel element: bpp is considered as a unit) device, or 8 bpp device, or 4 bpp device (24 bpp and 8 bpp are amount of data processing, thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to interpret that 24 bpp would be more complex than 8 bpp or 4 bpp) and then the system converts either 24 or 8 or 4 device independent bits (DIB) to 24 or 8 or 4 device dependent bit (DSB) format respectively before outputting to storage or to the device in the device dependent bit DSB format.

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E. The prior art fails to show or suggest the “storing” processes recited by the claims.

In reply to argument E, Vanderwiele et al. teach the system converts either 24 or 8 or 4 device independent bits (DIB) to 24 or 8 or 4 device dependent bit (DSB) format respectively before outputting to storage or to the device in the device dependent bit DSB format (Abstract, col. 5, line 19 – col. 6, line 30). Vanderwiele et al. also teach a system that “determines whether [an] image is targeted for multiple hardware formats or a single hardware format and then provides a conversion from device independent bits to device dependent bits formats in the case of the multiple hardware format targeting, or performing image conversion appropriate for the single device in the case of the single device targeting.” (Vanderwiele et al., Abstract)

9. Applicant’s arguments and amendments, filed on 12/19/2005, have been fully considered but they are not persuasive. Please see the rejection and response to argument above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau Nguyen whose telephone number is (571) 272-4092. The Examiner can normally be reached on Monday-Friday from 8:30 am to 5:30 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Heather Herndon, can be reached at (571) 272-4136.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. On July 15, 2005, the Central Facsimile (FAX) Number will change from 703-872-9306 to 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chau Nguyen
Patent Examiner
Art Unit 2176

William L. Bashore
WILLIAM BASHORE
PRIMARY EXAMINER
3/15/2006